REMARKS

In the Office action mailed October 23, 2003, corrections are required for the drawings and the specification. These corrections are submitted herewith to correct a typographical error and to add reference numeral 502, which was present in FIG. 5 but missing from the accompanying detailed description. No new matter is added by way of this amendment. Claims 7-9, 16-18, and 25-27 are rejected under 35 USC 112 for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Regarding claims 7, 16, and 25, the antecedent problem has been corrected through amended claims. Applicant requests cancellation of claims 8, 9, 17, 18, 26, and 27.

35 USC 102(b) Rejection

Claims 7-9, 16-18, and 25-27 are rejected under 35 USC 102(b) as being anticipated by Janiszewski et al. (US 5,657,422), "Janiszewski."

Directing Examiner's attention to MPEP 2131, the threshold issue under Section 102 is whether the Examiner has established a *prima facie* case for anticipation. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987)". "The identical invention must be shown in as complete detail as is contained in the ...claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1566 (Fed. Cir. 1989). The elements must be arranged as required by the claim but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

Claim 7 recites the following limitations (marked-up copy of claim 7 shown below), and

claims 16 and 25 also recite similar limitations. Note that limitations from dependent

claims 8 and 9 have been incorporated into the following amended claim, and similar

limitations now exist in amended claims 16 and 25.

> 7. (Currently amended)A method for reducing ~~eliminating or minimizing~~ the transition that occurs when real background noise is replaced by comfort noise in an IP telephone, said IP telephone having a RX unit, said method comprising:
> waiting, by said RX unit, for a first silence indication packet to be received while said RX unit is receiving incoming packets, said first silence indication packet providing a rate at which incoming packets are to be attenuated;
> attenuating, by said RX unit, said incoming packets when said first silence indication~~attenuation~~ packet is received from a TX unit, said attenuation occurring at said rate provided by said first silence indication packet~~a rate responsive to an indication provided by said TX unit~~;
> mixing, by said RX unit, comfort noise with said attenuated incoming packets;
> waiting, by said RX unit, for a second silence indication packet to be received, said second silence identification packet providing a level at which comfort noise is performed;
> generating, by said RX unit, comfort noise at ~~a~~ said level ~~responsive to an indication~~ provided by said ~~TX unit when said~~ second silence indication packet; ~~is received;~~
> waiting, by said RX unit, for voice packets to be received from said TX unit; and
> stopping, by said RX unit, the generation of comfort noise and playing voice packets when voice packets are received by said RX unit.

Applicant respectfully traverses Examiner's rejection of claims 7, 16 and 25 and argues

that Janiszewski does not disclose, teach, or otherwise suggest the claimed imitation of:

> waiting, by said RX unit, for a first silence indication packet to be received while said RX unit is receiving incoming packets, said first silence indication packet providing a rate at which incoming packets are to be attenuated

Examiner states that the limitation added from claims 8, 17, and 26, namely the

attenuation performed at a rate specified in the first silence indication packet, is disclosed

by Janiszewski. Examiner calls attention to Janiszewski at FIG. 2, where the attenuator

calculator 240 reduces the signal from 1 to 0.65 (maxatten) when the signal does not contain speech. Examiner asserts that the attenuation rate is inherently specified when the signal does or does not contain speech.

Applicant respectfully traverses this reasoning. The limitation in question clearly claims that the silence indication packet contains the value that is the rate at which attenuation is to be performed. Janiszewski does not disclose, teach or otherwise suggest a silence indication packet having an attenuation rate value within the packet. In contrast, the attenuation rate in Janiszewski is a constant factor 0.98, that is hardwired into the attenuation calculator 240. See Janiszewski at column 8, lines 59-64. Thus, Janiszewski teaches away from the limitation in question by providing a single, inflexible rate, and not indicating that that is any shortcoming is realized from this method described at column 8, lines 59-64. Also, Janiszewski waits 6 frames (full of packets) before invoking a noise activity detector 230 to send a no voice signal v[m] to the attenuator calculator. The present invention eliminates the need for both the noise activity detector 230 and the attenuation calculator, as the present invention uses (and claims) a first silence indication packet.

Applicant, using the same argument stated above, respectfully traverses Examiner's rejection of claims 7, 16 and 25 and also argues that Janiszewski does not disclose, teach, or otherwise suggest the claimed imitation of:

> attenuating, by said RX unit, said incoming packets when said first silence indication packet is received from a TX unit, said attenuation occurring at said rate provided by said first silence indication packet

Applicant respectfully traverses Examiner's rejection of claims 7, 16 and 25 and also argues that Janiszewski does not disclose, teach, or otherwise suggest the claimed imitation of:

> waiting, by said RX unit, for a second silence indication packet to be received, said second silence identification packet providing a level at which comfort noise is performed

Examiner reasons that Janiszewski discloses this limitation by referring to FIG. 2, the shaped noise generator 250 generates comfort noise based on the noise estimate N[m] from the noise estimator 220 for each sample in the current frame, which inherently depends on the sex frames used to declare no speech. Janiszewski at column 9, lines 2-3 and 10; column 7, lines 58-60.

Applicant respectfully traverses this reasoning. The claim limitation in question clearly indicates that the second silence indication frame contains a level at which comfort noise is generated. No noise estimator is needed, as disclosed in Janiszewski. Thus, processing overhead is reduced by the present invention and additional functionality, namely the noise estimator and its logic, is not needed by the present invention. Also, by placing the level information in the second silence indication packet, there is no need to wait for 6 frames full of packets, as taught by Janiszewski, to generate the comfort noise.

Applicant, using the same argument stated above, respectfully traverses Examiner's rejection of claims 7, 16 and 25 and argues that Janiszewski does not disclose, teach, or otherwise suggest the claimed imitation of:

> generating, by said RX unit, comfort noise at said level provided by said second silence indication packet

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35 USC 103(a) Rejection

Claims 1-6, 10-15, and 19-24 are rejected under 35 USC 103(a) as being unpatentable over Davidson et al. (US 6,577,862 B1), "Davidson" in view of Janiszewski.

Claim 1 is reproduced below, and claims 10 and 19 contain similar limitations.

> 1. A method for eliminating or minimizing the transition that occurs when real background noise is replaced by comfort noise in an IP telephone, said IP telephone having a TX unit, said method comprising:
> determining, by said TX unit of said IP telephone, whether silence exists;
> if silence is detected, then sending, by said TX unit, a first silence indication packet while said TX unit continues to send voice packets;
> waiting, by said TX unit, for a predetermined amount of time to pass;
> sending, by said TX unit, a second silence indication packet after said predetermined amount of time passes;
> waiting, by said TX unit, for voice activity to be detected; and
> starting, by said TX unit, normal packet activity after said voice activity is detected.

Examiner asserts that Davidson's method for supplying comfort noise further comprises if silence is detected, then sending, by the TX unit, a first silence indication packet while said TX unit continues to send voice packets if silence is detected. Examiner asserts that Davidson at FIG. 3, col 7, lines 65-67, that when silence is detected, by the terminal device, a SID frame is inherently sent.

Applicant respectfully traverses the Examiner's rejection based on this reasoning. Davidson, at col. 6, lines 64- col. 7, line 2, reads:

> *Thus, in receive silence step 310, the BSS [220] receives from the uplink communication channel a frame or frames either containing sound below some threshold (indicating silence), or a SID frame (as used in*

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discontinuous transmission protocol), or some other indicator of silence
on the uplink channel.

All this text in Davidson is saying is that silence on the uplink channel can be detected. This text in Davidson is significantly different from the limitation of if silence is detected, then sending, by said TX unit, a first silence indication packet while said TX unit continues to send voice packets. Thus, Davidson does not disclose, teach, or otherwise suggest this limitation of claims, 1, 10 and 19. Applicant is also confused by the apparent inconsistency of Examiner's argument; after asserting on page 6 of the Office action that Davidson does disclose this limitation, Examiner asserts on page 7 that Davidson does not disclose sending a first silence indication packet while the TX unit continues to send voice packets.

The Examiner cites Janiszewski again as teaching that the rate of attenuation of packets is determined according to the formula Rate = Background Noise (dB)(/Time (sec.), by citing Janiszewski's constant factor of 0.98. However, there is no indication anywhere in Janiszewski that such the value 0.98 satisfies the formula presented in the present invention.
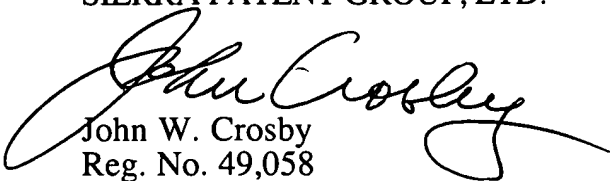
In conclusion, Applicant submits that the claims are currently in condition for allowance, and respectfully requests Examiner to place the present application in condition for allowance. If Examiner feels that there are any matters that may be resolved by

telephone, Examiner is invited to telephone the undersigned attorney at Examiner's earliest convenience.

Respectfully submitted,
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